Please provide the following information, and submit to the NOAA DM Plan Repository.

## Reference to Master DM Plan (if applicable)

As stated in Section IV, Requirement 1.3, DM Plans may be hierarchical. If this DM Plan inherits provisions from a higher-level DM Plan already submitted to the Repository, then this more-specific Plan only needs to provide information that differs from what was provided in the Master DM Plan.

URL of higher-level DM Plan (if any) as submitted to DM Plan Repository:

#### 1. General Description of Data to be Managed

### 1.1. Name of the Data, data collection Project, or data-producing Program:

NOAA ESRI Grid - seafloor hardbottom occurrence predictions model in New York offshore planning area from Biogeography Branch

### 1.2. Summary description of the data:

This dataset represents hard bottom occurrence predictions from a spatial model developed for the New York offshore spatial planning area. This model builds upon the data compilation and analytical framework laid out by Greene et al. (2010). The model also provides a continuous gridded prediction surface representing the likelihood of hard bottom occurrence.

## **1.3.** Is this a one-time data collection, or an ongoing series of measurements? One-time data collection

## 1.4. Actual or planned temporal coverage of the data:

2012-05

## 1.5. Actual or planned geographic coverage of the data:

W: -75, E: -69, N: 42, S: 37

#### 1.6. Type(s) of data:

(e.g., digital numeric data, imagery, photographs, video, audio, database, tabular data, etc.) raster digital data

#### 1.7. Data collection method(s):

(e.g., satellite, airplane, unmanned aerial system, radar, weather station, moored buoy, research vessel, autonomous underwater vehicle, animal tagging, manual surveys, enforcement activities, numerical model, etc.)

#### 1.8. If data are from a NOAA Observing System of Record, indicate name of system:

## 1.8.1. If data are from another observing system, please specify:

#### 2. Point of Contact for this Data Management Plan (author or maintainer)

#### 2.1. Name:

NCCOS Scientific Data Coordinator

#### 2.2. Title:

Metadata Contact

#### 2.3. Affiliation or facility:

National Centers for Coastal Ocean Science

#### 2.4. E-mail address:

NCCOS.data@noaa.gov

#### 2.5. Phone number:

## 3. Responsible Party for Data Management

Program Managers, or their designee, shall be responsible for assuring the proper management of the data produced by their Program. Please indicate the responsible party below.

#### 3.1. Name:

NCCOS Scientific Data Coordinator

#### 3.2. Title:

Data Steward

### 4. Resources

Programs must identify resources within their own budget for managing the data they produce.

- 4.1. Have resources for management of these data been identified?
- 4.2. Approximate percentage of the budget for these data devoted to data management ( specify percentage or "unknown"):

### 5. Data Lineage and Quality

NOAA has issued Information Quality Guidelines for ensuring and maximizing the quality, objectivity, utility, and integrity of information which it disseminates.

## 5.1. Processing workflow of the data from collection or acquisition to making it publicly accessible

(describe or provide URL of description):

**Process Steps:** 

- 2012-05-01 00:00:00 - A maximum entropy (MaxEnt) model was used to predict the likelihood of hard bottom occurrence by combining the presence-only hard bottom point dataset with potential predictor variables (Phillips et al., 2006; Phillips and

Dudik, 2008). This approach can be thought of as creating a "suitability map" for the presence of hard bottom patches, analogous to habitat suitability maps developed for organisms (Elith et al., 2011). A full description of the MaxEnt algorithm is beyond the scope of this document (see Elith et al., 2011). Briefly, MaxEnt produces an estimate of the relative likelihood of a feature's occurrence at each location in a specified grid, assuming that presences take on the most spatially random (uniform) distribution possible under the constraint that for each environmental predictor variable the expected value from the estimated distribution matches its observed mean (Elith et al., 2006; Phillips et al., 2006; Peterson et al., 2007). MaxEnt models are trained on a subset of the data and validated by testing predictions on remaining data. MaxEnt has been shown to perform well compared to other presence-only approaches (Elith et al., 2006; Phillips and Dudik, 2008), and is readily implemented using free, open-source software (Phillips et al., 2006, downloadable at http://www.cs.princeton.edu/~schapire/maxent/). See the following report for more information on this layer's lineage: Menza, C., B.P. Kinlan, D.S. Dorfman, M. Poti and C. Caldow (eds.). 2012. A Biogeographic Assessment of Seabirds, Deep Sea Corals and Ocean Habitats of the New York Bight: Science to Support Offshore Spatial Planning. NOAA Technical Memorandum NOS NCCOS 141. Silver Spring, MD. 224 pp. (Citation: usSEABED Atlantic Coast Offshore Surficial Sediment Data Release)

5.1.1. If data at different stages of the workflow, or products derived from these data, are subject to a separate data management plan, provide reference to other plan:

## 5.2. Quality control procedures employed (describe or provide URL of description):

#### 6. Data Documentation

The EDMC Data Documentation Procedural Directive requires that NOAA data be well documented, specifies the use of ISO 19115 and related standards for documentation of new data, and provides links to resources and tools for metadata creation and validation.

## **6.1. Does metadata comply with EDMC Data Documentation directive?**No

#### 6.1.1. If metadata are non-existent or non-compliant, please explain:

Missing/invalid information:

- 1.7. Data collection method(s)
- 4.1. Have resources for management of these data been identified?
- 4.2. Approximate percentage of the budget for these data devoted to data management
- 5.2. Quality control procedures employed
- 7.1. Do these data comply with the Data Access directive?
- 7.1.1. If data are not available or has limitations, has a Waiver been filed?

- 7.1.2. If there are limitations to data access, describe how data are protected
- 7.4. Approximate delay between data collection and dissemination
- 8.1. Actual or planned long-term data archive location
- 8.3. Approximate delay between data collection and submission to an archive facility
- 8.4. How will the data be protected from accidental or malicious modification or deletion prior to receipt by the archive?

### 6.2. Name of organization or facility providing metadata hosting:

NMFS Office of Science and Technology

## 6.2.1. If service is needed for metadata hosting, please indicate:

#### 6.3. URL of metadata folder or data catalog, if known:

https://inport.nmfs.noaa.gov/inport/item/38952

#### 6.4. Process for producing and maintaining metadata

(describe or provide URL of description):

Metadata produced and maintained in accordance with the NMFS Data Documentation Procedural Directive: http://www.nmfs.noaa.gov/op/pds/documents/04/111/04-111-01.pdf

#### 7. Data Access

NAO 212-15 states that access to environmental data may only be restricted when distribution is explicitly limited by law, regulation, policy (such as those applicable to personally identifiable information or protected critical infrastructure information or proprietary trade information) or by security requirements. The EDMC Data Access Procedural Directive contains specific guidance, recommends the use of open-standard, interoperable, non-proprietary web services, provides information about resources and tools to enable data access, and includes a Waiver to be submitted to justify any approach other than full, unrestricted public access.

#### 7.1. Do these data comply with the Data Access directive?

## 7.1.1. If the data are not to be made available to the public at all, or with limitations, has a Waiver (Appendix A of Data Access directive) been filed?

7.1.2. If there are limitations to public data access, describe how data are protected from unauthorized access or disclosure:

#### 7.2. Name of organization of facility providing data access:

National Centers for Coastal Ocean Science

## 7.2.1. If data hosting service is needed, please indicate:

#### 7.2.2. URL of data access service, if known:

http://coastalscience.noaa.gov/projects/download.aspx?fpath=D%3a%5cWebsites%5cNCCOS%5cproj

#### 7.3. Data access methods or services offered:

Contact Distributor for instructions on how to acquire dataset.;

#### 7.4. Approximate delay between data collection and dissemination:

# 7.4.1. If delay is longer than latency of automated processing, indicate under what authority data access is delayed:

#### 8. Data Preservation and Protection

The NOAA Procedure for Scientific Records Appraisal and Archive Approval describes how to identify, appraise and decide what scientific records are to be preserved in a NOAA archive.

## 8.1. Actual or planned long-term data archive location:

(Specify NCEI-MD, NCEI-CO, NCEI-NC, NCEI-MS, World Data Center (WDC) facility, Other, To Be Determined, Unable to Archive, or No Archiving Intended)

- 8.1.1. If World Data Center or Other, specify:
- 8.1.2. If To Be Determined, Unable to Archive or No Archiving Intended, explain:
- 8.2. Data storage facility prior to being sent to an archive facility (if any):

National Centers for Coastal Ocean Science - Silver Spring, MD

- 8.3. Approximate delay between data collection and submission to an archive facility:
- 8.4. How will the data be protected from accidental or malicious modification or deletion prior to receipt by the archive?

Discuss data back-up, disaster recovery/contingency planning, and off-site data storage relevant to the data collection

## 9. Additional Line Office or Staff Office Questions

Line and Staff Offices may extend this template by inserting additional questions in this section.